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I. Real Party In Interest

The real party of interest in this appeal is the J. M. Huber Corporation of Edison, New Jersey. This Application is presently assigned to the J. M. Huber Corporation. The recordation date of the assignment for this Application is December 8, 1999 (Reel 012812, Frame 0638).

II. Related Appeals and Interferences

Currently, there are no related appeals or interferences known to Appellants, Appellants' undersigned attorney, or known to the Assignee, that will directly affect or be affected by the Board's decision in the present appeal.

III. Status of Claims

The status of the claims in this application are:

A. Total Number of Claims in Application

Claims in the application are: 1-3, 5-8, and 10-16

B. Status of all of the Claims

1. Claims canceled: 4, and 9
2. Claims withdrawn from consideration but not cancelled: NONE
3. Claims pending: 1-3, 5-8, and 10-16
4. Claims allowed: NONE
5. Claims rejected: 1-3, 5-8, and 10-16

C. Claims on Appeal

The claims on appeal are: 1-3, 5-8, and 10-16

IV. Status of Amendments

Subsequent to the Examiner's final rejection of July 14, 2005, Appellants amended claim 1 by submitting amendments in a paper dated September 8, 2005. In the Advisory Action sent by the Examiner on October 28, 2005, the Examiner kindly agreed to enter the amendments.

V. Summary of the Invention

The present application relates to a laminated wood piece, a door including the laminated wood piece in the form of a stile member, and methods for manufacturing a door including the laminated wood piece as a door stile. The laminated wood piece comprises a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and a wood composite component having layers oriented substantially parallel to the lower surface of the solid hardwood component. The ratio of a thickness of the solid hardwood component to a thickness of the wood composite component is from about 1:1 to about 1:10. (See claim 1.)

As mentioned above, the laminated wood piece may be installed as a stile in a composite door so that the wood composite component faces inwardly towards the center of the door, and the solid hardwood component is on the outer side of the wood composite component to give the edge of the door a pleasing and attractive finish that preferably matches the wood grain of the surface skin veneers. (Specification, Paragraph 0010).

VI. Issue Presented on Appeal

Two issues are presented for review by the Board on appeal:

(I.) Whether claims 1 – 3 and 5 – 8 have been properly rejected under 35 U.S.C. §103 as being obvious in view of Iwata, U.S. Patent No. 5,554,429 (“Iwata”).

(II.) Whether claims 10-16 have been properly rejected under 35 U.S.C. §103 as being obvious in view of the combination of West, U.S. Patent No. 6,092,343 (“West”) and Hsu.

VII. Grouping of the Claims

The Examiner has maintained two separate grounds for the final rejection of claims 1-3, 5-8, and 10-16, as set forth above. Appellants concede, for the purposes of this appeal only, that the individual claims within these grounds stand or fall together.

VIII. Argument—Rejections under 35 U.S.C. §103

I. Whether claims 1 – 3 and 5 – 8 have been properly rejected under 35 U.S.C. §103 as being obvious in view of Iwata, U.S. Patent No. 5,554,429 (“Iwata”).

(A) The Examiner’s Position:

In the Office Action of July 14, 2006, on pages 3 - 4, the Examiner argues that Iwata discloses “the basic inventive concept” of the present claims, however, the Examiner

concedes that Iwata fails to disclose several elements of the present claims, including the dimensions of the thickness of the hardwood, the width and the length of the wood piece, the screw holding strength, and the split resistance strength, but nonetheless, contends, citing to *In re Aller*, 15 U.S.P.Q. 233 (C.C.P.A. 1955), that these thickness, length, width, screw holding strength, and split resistance strength ranges recited in the present claims would have been obvious because, “it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *See in re Aller*, 15 U.S.P.Q. at 233.”

(B) Appellant’s Position:

The Examiner’s conclusion that the present invention, as recited in claims 1 – 3 and 5 – 8 would be obvious in view of Iwata is untenable considering that this reference fails to teach or suggest all of the elements of the present claims, including (1) the dimensions of the thickness of the hardwood, (2) the width and the length of the wood piece, (3) the screw holding strength, and the split resistance strength. M.P.E.P. §2143 requires that in order to establish a *prima facie* case of obviousness under 35 U.S.C. §103 the Examiner must show that the applied prior art reference teaches or suggests all of the elements of the present claims.

As noted above, the Examiner concedes that Iwata fails to disclose these several elements of the present claims, but argues instead that thickness, length, width, screw holding strength, and split resistance strength ranges recited in the present claims would have been obvious. Appellants disagree with this analysis because the Examiner has not made the necessary factual findings to support the use of *Aller*. *Aller* concerned a process patent application. In *Aller* the Examiner identified a known relationship in the prior art between a set of processing parameters and the process efficiency, and the Examiner further showed that this known relationship demonstrated that the claims on appeal merely reflected the results of

expected optimization of the disclosed set of parameters. (105 U.S.P.Q. at 234-35). In the present case, the Examiner has made no such showing. In fact, rather than make any such showings, it appears that in the Office Action of November 18, 2003, the Examiner merely recites the holding of the *Aller* case, without applying its holding to the facts of the present application, and asserts that all elements of the claims that are not specifically taught by Iwata could be obtained by a person of ordinary skill in the art through routine optimization.

Indeed, the Examiner has not shown that Iwata has any teaching that would have motivated a person of ordinary skill to optimize the thickness, length, width, screw holding strength, and split resistance strength. Merely because Iwata discloses composite wood boards does not make it obvious to optimize the composite wood board in the manner suggested by the Examiner. By contrast, in *Aller*, the prior art reference disclosed a relationship between certain processing parameters and the process efficiency. Accordingly, Appellants believe that the Examiner has not appropriately applied *Aller* with respect to the present application.

For all of these reasons, the Examiner's rejection under 35 U.S.C. §103 based Iwata is improper, and the board should overturn the rejection of claims 1 – 3 and 5 – 8.

II. Whether claims 10-16 have been properly rejected under 35 U.S.C. §103 as being obvious in view of the combination of West, U.S. Patent No. 6,092,343 ("West") and Iwata.

(A) The Examiner's Position:

In the Office Action of July 14, 2005, on Pages 5-6, the Examiner argues that West teaches "the basic inventive concept" of the elements of the door including opposed door skins, stile members, rails and a core, along with their orientation and construction. The Examiner concedes that West fails to teach several elements of the present claims including:

(1) the “specific of the core”; (2) a stile having the hardwood and parallel layers of wood composite; (3) the wood composite layers contacting the core; (4) the method of cutting the wood composite and the hardwood into the desired dimensions; and (5) attaching all of these sections together, with both having the same width.

The Examiner applies Iwata to teach these elements missing from West, but acknowledges that Iwata itself fails to disclose several missing elements of the present claims (Office Action of July 14, 2005, page 6). Nonetheless, the Examiner maintains that these additional missing elements would be obvious to one of ordinary skill in the art in view of:

the teachings of Iwata et al. to have used a core Iwata et al. in order to have the desired strength of the door. The method cutting the wood composite and hardwood of the same width and attaching them together would also be an obvious way to make the device, and when assembled the method of having the wood composite touch the core would also be obvious, since that configuration would include facing the more aesthetically pleasing hardwood to the eye of the user.

(B) Appellant’s Position:

The Examiner’s conclusion that the present invention, as recited in claims 10 – 16 would be obvious in view of Iwata and West is untenable considering that these references fails to teach or suggest all of the elements of the present claims.

Appellants reiterate the showings necessary for the Examiner to make in order to establish a prima facie case of obviousness: (1) there must be some suggestion or motivation to modify or combine the references as suggested by the Examiner (it is not sufficient to say that the cited reference(s) can be modified or combined without a teaching in the prior art to suggest the desirability of the combination or modification); (2) there must also be a reasonable expectation of success for the modification or combination; and (3) the references, taken either alone or in combination, must teach or suggest all elements of the present claims. (M.P.E.P. §2143).

As mentioned previously, Appellants have found the Examiner's reasoning difficult to follow, but again allege that the Examiner has failed to make a sufficient case that the present claims would be obvious in view of the combination of West and Iwata. Specifically, rather than identify statements in the prior art references that would have motivated a person of ordinary skill in the art to modify and combine the references in the manner the Examiner is suggesting, the Examiner makes retrospective statements that are indicative of hindsight reconstruction. Even assuming that there was sufficient teachings that would have motivated a person of ordinary skill in the art to modify and combine the references, the Examiner has not demonstrated that the combination of Iwata and West discloses all of the elements of the present claims.

For all of these reasons, the Examiner's rejection under 35 U.S.C. §103 based Iwata and West is improper, and the board should overturn the rejection of claims 10 – 16.

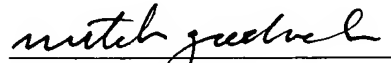
Conclusion

In light of all of the reasons delineated herein, Appellants submit that rejected Claims 1-16 are patentable over the art of record. Appellant hereby requests the Board to reverse the decision by the Examiner to finally reject Claims 1-16 in the present Application.

June 9, 2006

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IX. Appendix of Claims

Appealed Claims 1-3, 5-8, and 10-16

Claim 1. A laminated wood piece comprising:

(a) a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and

(b) a wood composite component having layers oriented substantially parallel to the lower surface of the solid hardwood component;

wherein the ratio of a thickness of the solid hardwood component to a thickness of the wood composite component is from about 1:1 to about 1:10, and the width of the piece is about 3 cm to about 6 cm, and a length of the piece is about 120 cm to about 305 cm.

Claim 2. The laminated wood piece according to claim 1, wherein the thickness of the solid hardwood component is about 0.3 cm to about 1.3.

Claim 3. The laminated wood piece according to claim 1, wherein the wood composite component is an oriented strand board.

Claim 5. The laminated wood piece according to claim 1, wherein the laminated wood piece has a screw holding strength of about 400 lbs to about 1200 lbs.

Claim 6. The laminated wood piece according to claim 1, wherein the wood composite component is an oriented strand board and has a density of about 35 lbs/ft³ to about 48 lbs/ft³.

Claim 7. The laminated wood piece according to claim 1, wherein the laminated wood piece has a split resistance of greater than about 1000 lbs.

Claim 8. The laminated wood piece according to claim 1, wherein the wood composite component is an oriented strand board comprising strands, in which at least 90 wt% of the strands are oriented substantially parallel to the length of the laminated wood piece.

Claim 10. A door including a frame, the frame including at least one stile member, the stile member comprising:

(a) a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and

(b) a wood composite component having layers oriented substantially parallel to the upper surface of the solid hardwood component;

wherein the ratio of a thickness of the solid hardwood component to a thickness of the wood composite component is from about 1:1 to about 1:10.

Claim 11. The door according to claim 10, wherein the door further comprises an additional stile member being arranged substantially parallel to the at least one stile member and both the at least one stile member and the additional stile member have a substantially vertical orientation.

Claim 12. The door according to claim 10, wherein the door further includes a core, a pair of rails, and a pair of opposed doorskins.

Claim 13. The door according to claim 12, wherein the wood composite component of the at least one stile is in contact with the core.

Claim 14. A method for manufacturing a door comprising the steps of:

providing a core;

providing a door stile comprising:

(a) a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and

(b) a wood composite component attached to the solid hardwood component, the wood composite component having layers oriented substantially parallel to the lower surface of the solid hardwood component; and

securing the door stile to the core, with the wood composite component contacting the core, and the solid hardwood component being on the outer side of the wood composite component.

Claim 15. A method for manufacturing a door stile comprising the steps of:

preparing a wood composite panel having several layers and a thickness of about 0.6 cm to about 6 cm;

cutting the wood composite panel into a plurality of wood composite sections, each wood composite section having a width of about 3 cm to about 6 cm;

providing a solid hardwood component having an upper surface and a lower surface that are substantially parallel to each other; and

attaching one of the plurality of wood composite sections to the lower surface of the solid hardwood component, wherein the wood composite section has several layers oriented substantially parallel to the lower surface of the solid hardwood component.

Claim 16. The method according to claim 15, wherein the solid hardwood component has the same width as each of the wood composite sections.